



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/719,045	12/07/2000	Andrew Paul Chapman	CARP0006-100	3379
34133 7590 12/11/2008 COZEN O'CONNOR, P.C. 1900 MARKET STREET PHILADELPHIA, PA 19103-3508				
EXAMINER SAUNDERS, DAVID A				
ART UNIT		PAPER NUMBER		
1644				
MAIL DATE		DELIVERY MODE		
12/11/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

---

*Ex parte* ANDREW PAUL CHAPMAN and DAVID JOHN KING

---

Appeal 2008-0454  
Application 09/719,045  
Technology Center 1600

---

Decided: December 11, 2008

---

Before TONI R. SCHEINER, LORA M. GREEN, and  
RICHARD M. LEOVITZ, *Administrative Patent Judges*.

LEOVITZ, *Administrative Patent Judge*.

DECISION ON REQUEST FOR REHEARING

Appellants have requested rehearing of the decision entered May 27, 2008 (“Decision”), which affirmed rejections of claims 1-10 and 12-15 (all of the pending claims) for obviousness. The request for rehearing is denied.

## DISCUSSION

Appellants argue that “the failure to find nonobviousness under the present circumstances was erroneous” (Req. Reh’g 2). According to Appellants, “the number of possibilities that one needs to pick and choose from” precludes a finding of obviousness (*id.*). Appellants also argue that the prior art Gonzalez patent teaches away from a disulphide bridge in the claimed divalent antibody fragment (*id.* at 3).

These arguments do not “state with particularity the points believed to have been misapprehended or overlooked by the Board,” as required by 37 C.F.R. § 41.52. Essentially, Appellants disagree with the conclusions reached in the Decision. That is not a proper basis for a Request for Rehearing. For an applicant dissatisfied with the outcome of a Board decision, the proper course of action is to appeal, not to file a Request for Rehearing to re-argue issues that have already been decided. *See* 35 U.S.C. §§ 141, 145.

In their Appeal Brief, Appellants argued, as they do in this Request for Rehearing, that Gonzalez “lists a variety of crosslinking sites on that antibody fragments that can be used” to attach the polymer molecules (App. Br. 7) (Req. Reh’g 3 (“Because the polymer can be attached to either chain, there are potentially **500** locations at which the linkage could occur **on each fragment**”)).

This argument was expressly addressed in the Decision. We acknowledged that different linkages were described in Gonzalez (Dec. 7-8).

However, based on the evidence described in Findings of Fact (FF)<sup>1</sup> 2, 5, 6, and 9, we concluded that persons of skill in the art would have recognized the advantages of coupling PEG to the cysteine of the heavy chain hinge region, thereby form a disulphide bridge as required by the claims (Dec. 8-9). We also addressed Appellants' argument regarding picking and choosing (Dec. 9). Appellants have not identified anything we misapprehended or overlooked in our Decision. Instead, they merely reiterate their earlier arguments.

Appellants contend that we misstated the Examiner's argument: "the Examiner never argued that there were teachings of a dumbbell shaped antibody structure comprised of two monovalent Fab' fragments" (Req. Reh'g 3).

Our statement regarding the Examiner's argument referenced: 1) FF8 which directly quotes from Gonzalez's description of the "dumbbell-shaped [antibody] structure," 2) FF12 which refers to the Examiner's finding of an Fab' conjugated to a PEG via a cysteine residue, and 3) page 5 (*see* FF8 and Dec. 8) of the Answer which explains the Examiner's position that Gonzalez's teachings would have led persons of ordinary skill in the art to link Fab'-SH fragments to form the dumbbell structure (Dec. 7-8). Thus, in context, our characterization of the Examiner's argument would have been understood to include Gonzalez's explicit description, as well as what it would have reasonably suggested to persons of ordinary skill in the art. Consistently, we summarized the Examiner's position as follows: "Based on these teachings, the Examiner contends that it would have been obvious to

---

<sup>1</sup> "Findings of Fact" refer to the Findings of Fact set forth in the Decision.

have formed the dumbbell-shaped antibody by linking the Fab' fragments via the hinge cysteine-polymer structure, meeting the limitations of the claimed interchain bridge" (Dec. 7).

Appellants also argue that "the Board acknowledged, the fragments that could be involved in the dumbbell shaped structure include Fab, Fab', and F(ab')<sub>2</sub> (Decision, finding of fact 3)" (Req. Reh'g 3). This is not correct. Finding of Fact 3 generally referred to fragments which could be conjugated to the PEG polymer; there was no reference to the dumbbell shape. To the contrary, we explicitly distinguished the dumbbell structure from alternative structures formed from the F(ab')<sub>2</sub> antibody fragment (Dec. 9:4-14).

Finally, we already considered, but were not persuaded by Appellants' argument that Gonzalez teaches away from the claimed invention (Dec. 7-8).

Since Appellants have not pointed out any points that we overlooked or misunderstood, we decline to modify our earlier conclusions.

REHEARING DENIED

cdc

COZEN O'CONNOR, P.C.  
1900 MARKET STREET  
PHILADELPHIA PA 19103-3508